Efficacy parameters were based on clinical trials: Jarnerot 2005, Sands 2001, Lichtiger 1994 and D'Haens 2001. Twelve-month time horizon was developed. Cost data specific for the Polish health care system was based on retrospective medical record review of patients with ulcerative colitis. Resource use associated with the surgery was based on clinical expert opinion. The unit costs of treatment were derived from Polish official tariff lists for health care services paid by public payer. Average body weight of the patient (60 kg) was based on data from registry of patients with Crohn's disease, assuming the similar nature of the disease. **RESULTS:** Infliximab was associated with a gain of 0.21 quality adjusted life years (QALYs) compared with colectomy. Additional costs associated with the biological treatment were estimated at 14,793 PLN. Incremental cost-utility ratio was estimated at 69,984 PLN/QALY for infliximab compared with colectomy. The sensitivity analysis showed a relative consistency of results. **CONCLUSIONS:** The estimated cost per QALY is much below official threshold (99,543 PLN/QALY) which indicates that treatment with infliximab is cost effective compared with surgical treatment in Polish conditions.

PGI14

COST-PER-NUMBER NEEDED TO TREAT (NNT) ANALYSIS OF INFLIXIMAB COMPARED TO ADALIMUMAB IN THE TREATMENT OF MODERATE TO SEVERE ULCERATIVE COLITIS IN THE BRAZILIAN PUBLIC HEALTH CARE SYSTEM (SUS)

Morais AD, Pereira ML

Janssen Cilag Farmaceutica, São Paulo, Brazil

OBJECTIVES: Compare the cost-per-remission of adalimumab (ADA) to infliximab (IFX) for the treatment of moderately to severely active ulcerative colitis (UC) in the Brazilian public health care system (SUS). **METHODS:** Treatment costs considered drug acquisition costs from a public payer perspective in Brazil considering an average patient of 80 kg. The cost/vial of IFX and ADA were defined by the latest government acquisitions, as published in the official website comprasnet.gov.br. The time horizon was defined at 8, 52 and 54 weeks of treatment. The recommended dose and dosing intervals were according to label of each drug. The nnt was calculated based on the clinical remission data gathered at week 8 and week 52/54 from the published phase III clinical trials of ADA and IFX, ULTRA-2 and ACT I respectively. (Rutgeerts P 2005; Sandborn WJ 2012). **RESULTS:** At week 8, IFX has a treatment cost of R$ 13.652 with a cost-per-NNT for clinical remission of R$ 54.610 (bio-naive and all patients), compared to ADA with a treatment cost of R$ 8.284 and a cost-per-NNT for clinical remission of R$ 115.983/patient and R$ 82.845/bio-naive patient. At week 52/54, IFX has a treatment cost of R$ 36.406 compared to ADA with R$ 31.067/R$ R$ 32.102 per patient. Considering the cost-per-NNT for clinical remission at week 52/54, ADA has an average cost of R$ 341.735 compared to IFX with a cost-per-NNT for clinical remission of R$ 182.032 at week 52/54. Considering bio-naive patients, IFX remains with a cost-per-NNT for clinical remission of R$ 182.032 compared to ADA with R$ 310.668/R$ 341.735 at week 52/54. **CONCLUSIONS:** IFX has a lower number needed to treat and a lower cost-per-NNT to achieve clinical remission at both week 8 week 52/54 compared with ADA in the treatment of moderately to severely active ulcerative colitis, independently of patient subgroup.

PGI15

COST EFFECTIVENESS ANALYSIS OF TENOFOVIR DISOPROXIL FUMARATE (VIREAD®) IN THE TREATMENT OF PATIENTS WITH CHRONIC HEPATITIS B (CHB) IN MEXICO

Soto H[1], Botello BS[2], Pizarro M[3], Rizzoli A[4], Gozález LA[2]

[1]*Iteliness Consulting, D. F., Mexico,* [2]*Iteliness Consulting, Mexico City, Mexico,* [3]*Hospital Infantil de Mexico Federico Gomez, Mexico City, Mexico,* [4]*Hospital Infantil de México Federico Gómez, Mexico City, Mexico*

OBJECTIVES: To demonstrate the efficacy, security and effectiveness of tenofovir disoproxil fumarate (Viread®) in the treatment of patients with chronic hepatitis B (CHB) in Mexico, from the Mexican institutional perspective. **METHODS:** We used decision analysis to calculate the cost-effectiveness of 5 competing strategies in CHB treatment, 1) tenofovir DF; 2) Entecavir; 3) Adefovir; 4) Lamivudine; and 5) Peginterferon alfa-2a, from the insititutional perspective. A Markov model was developed over 40 years' time horizon. The outcome measure was the life years gained (LY). Direct health care cost where used and the discount rate was of 5% for cost and life years, also incremental cost effectiveness ratio (ICER), sensitivity analyses and probabilistic sensitivity analyses were performed. **RESULTS:** Tenofovir DF had more effectiveness and less cost in the treatment of CHB; in the Markov model tenofovir DF had the highest life years gained compared with all other therapies under evaluation. Tenofovir DF had 15.49LY with a cost of $363,314.84, Entecavir had 15.37LF with a cost of $435,849.99, Adefovir had 14.89LY with a cost of $487,457.55, Lamivudina had 13.84LY with a cost of $498,603.87 and Peginterferon alfa-2[a] had 13.56LY with a cost of $406,795.25, hence all the therapies had an ICER dominated by tenofovir DF in all the scenarios. The sensitivity analyses proved that tenofovir DF was cost effective compared to all other therapies under evaluation in the treatment of CHB patients in Mexico. According to the probabilistic sensitivity analyses, the likelihood of tenofovir DF to be cost effective is 88% under the willingness-to-pay threshold in Mexico. **CONCLUSIONS:** There is evidence from the clinical and the cost effectiveness study that the use of tenofovir DF in the treatment of patients with CHB is cost effective, and must be considered as first option in the treatment of patients with CHB diagnosis in Mexico.

PGI16

THE VALUE OF IMPROVING TREATMENT ADHERENCE IN CHRONIC HEPATITIS C INFECTION

McDermott CL, Veenstra DL, Hansen RN, Sullivan SD

University of Washington, Pharmaceutical Outcomes Research and Policy Program, Seattle, WA, USA

OBJECTIVES: In observational studies and randomized trials of patients with hepatitis C infection, higher medication adherence is associated with improved clinical outcomes. We evaluated the impact of adherence on long-term outcomes and costs in patients with genotype 1 chronic hepatitis C (CHC) receiving peginterferon and ribavirin (PEG-RBV). **METHODS:** We utilized a cohort Markov model describing the natural history of hepatitis C infection in a population of 50 year-old, treatment-experienced subjects to evaluate transitions between CHC, compensated cirrhosis, decompensated cirrhosis, hepatocellular carcinoma, liver transplant, liver transplant survivor, and death. Using previously published data from the Hepatitis C Antiviral Long-term Treatment against Cirrhosis trial, we modeled four levels of medication adherence: >80% PEG-RBV, >80% PEG/<80% RBV, <80% PEG/>80% RBV, and <80% PEG-RBV. We calculated the difference in total liver-related health care costs between patients in the lowest versus each higher level of adherence following a hypothetical nursing-based intervention program, and performed probabilistic sensitivity analysis to evaluate uncertainty in our results. **RESULTS:** Over a lifetime horizon, comparing patients of highest versus lowest adherence levels, we found the following reductions in liver-related events: 9.9% compensated cirrhosis, 4.7% decompensated cirrhosis, 1.4% hepatocellular carcinoma, and 0.5% liver transplant. Among the various scenarios of medication adherence, the difference in total discounted treatment and medication costs ranged from $12,820 to $62,690. Thus, an intervention that could, on average, improve adherence by 20% would lead to cost offsets of $29, 850 and improvement in QALYs of 0.378. The 95% confidence ranges from probabilistic sensitivity analysis were $18,790-$35,600 and -0.387 to 0.810 QALYs. **CONCLUSIONS:** This model-based analysis demonstrates that increased patient adherence may result in improved outcomes and reduced costs. Future research should focus on the design of targeted interventions to implement these findings.

PGI17

COST EFFECTIVENESS ANALYSIS OF ALVERINE/SIMETHICONE (METEOSPASMYL®) IN THE TREATMENT OF PATIENTS WITH IBS IN MEXICO

Soto H[1], Pizarro M[2], Botello BS[3], Rizzoli A[4], Toriz A[5]

[1]*Iteliness Consulting, D. F., Mexico,* [2]*Hospital Infantil de Mexico Federico Gomez, Mexico City, Mexico,* [3]*Iteliness Consulting, Mexico City, Mexico,* [4]*Hospital Infantil de México Federico Gómez, Mexico City, Mexico,* [5]*Hospital San Angel Inn, Mexico City, Mexico*

OBJECTIVES: To demonstrate the efficacy, security and effectiveness of alverine/simethicone (Meteospasmyl®) in the treatment of patients with irritable bowel syndrome (IBS) in Mexico, from institutional perspective. **METHODS:** We used decision analysis to calculate the cost-effectiveness of 3 competing strategies in IBS treatment, 1) alverine/simethicone (A/S); 2) pinaverium bromide (PB); and 3) tegaserod (T). A decision tree was developed over 1 month time horizon, and then a Markov model was designed over 13 months, this model was carry out in two scenarios, the first Markov model studies the patient treatment only with one drug therapy, the second one analyses the patient using a switch of treatment if the patient didn't respond to the first option. The outcome measure was the global improvement of the symptoms and the time without the disease respectively. Direct health care cost where used, also incremental cost effectiveness ratio (ICER), sensitivity analyses and probabilistic sensitivity analyses was performed. **RESULTS:** A/S had more effectiveness and less cost in the treatment of IBS; in the decision tree, for every 1% of patients with clinical response using A/S, it must be pay an average of $3048.15, in the Markov model A/S compared to PB was a dominant strategy; T was extended dominated in both analyses from the institutional perspective. The sensitivity analyses proved that A/S was cost effective compared to PB and T in the treatment of IBS patients in Mexico. According to the probabilistic sensitivity analyses, the likelihood of A/S to be cost effective is 90% under the willingness-to-pay threshold in Mexico. **CONCLUSIONS:** There is evidence from the clinical and the cost effectiveness study that the use of A/S in the treatment of patients with IBS is cost effective, and must be considered as first option in the treatment of patients with IBS diagnosis in Mexico.

PGI18

COST-EFFECTIVE ANALYSIS OF DIAGNOSTIC APPROACHES FOR MONITORING ASYMPTOMATIC PANCREATIC NEOPLASMS

Ptak DM[1], Gricar J[2], Pearlman DM[3], Gardner T[1], McKenna D[1], Huang Y[1]

[1]*Dartmouth College, Hanover, NH, USA,* [2]*Apo-Med, New York, NY, USA,* [3]*Georgetown University, Montclair NJ, NH, USA*

OBJECTIVES: Recent advances in diagnostic imaging technology have been followed by an increased incidence of asymptomatic pancreatic neoplasms. Recommended clinical approaches to continued monitoring vary in frequency, invasiveness and cost. This study's objective is to compare the risks and cost implications associated with annual computed tomography (CT), empiricism (watchful waiting), endoscopic ultrasound (EUS) and magnetic resonance imaging (MRI) screening. **METHODS:** Cost and accuracy information was obtained from published peer-reviewed journal articles. Empiricism serves as a baseline comparison of these procedures and includes the cost of one annual physician visit. Incremental Cost Effectiveness Ratios (ICERs) were calculated, (procedure cost/detection rate accuracy) and compared across diagnostic testing procedures. Risk was defined as the chance of missed detection due to less accurate imaging or lack of screening. **RESULTS:** Costs for empiricism ($82) were minimal when compared to CT ($196), EUS ($671) and MRI ($363). Although empiricism was the least expensive monitoring strategy, it was associated with the highest risk of undetected metastasizings. Of the diagnostic options, CT had